UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,769	03/06/2002	Sung-Won Lee	678-815 (P10194)	6830

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EXAMINER
NGUYEN, BINH QUOC

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/091,769	SUNG WON LEE
	Examiner	Art Unit
	Binh Q. Nguyen	2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*03/06/2002*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

2.   Claims **1-21** are rejected under 35 U.S.C. 102(b) as being anticipated by *Wegrzyn* the US

Patent No: (US 5,29,540).

Regarding claim 1; *Wegrzyn* teaches a packet service method for a base station controller

(BSC) in a mobile communication system, comprising the steps of:

receiving a packet *(see col. 5, lines 9-28, input message means a packet)* to be transmitted for a

mobile station (MS) *(see col. 9, lines 44-67, and col. 3, lines 23-45, mobile unit means mobile*

station (MS)) ;

adding a field containing time information necessary for packet transmission on a radio link *(col.*

4, lines 48-67, transmission link 18, or 20 means a radio link) to the received packet *(see col. 10,*

lines 54-65, and col. 2, lines 31-48, a time stamp means a field containing time information);

and

transmitting the packet including the field to a base station transceiver sub-system (BTS) *(see*

Fig. 1, Fig. 2, Fig. 4, col. 9, lines 44-67, and col. 4, lines 48-67, " a channel element (CE) 22

contains items 24, 26, 28, 30, 32" means a base station transceiver sub-system (BTS)).

Regarding claim 2. *Wegrzyn* teaches the packet service method of claim 1, further

comprising the steps of:

determining whether a sequence number is to be used for the packet transmission

(see col. 8, lines 11-65, and col. 24, lines 31-44); and

adding a field containing the sequence number of the packet to the packet if it is determined that

the sequence number is to be used *(see col. 8, line 11-to-col. 9, line 5)*.

Regarding claim 3. *Wegrzyn* teaches the packet service method of claim 1, wherein the

time information is an action time when the packet is to be transmitted on the radio link *(col. 6,*

lines 56-67, col. 10, lines 54-67, and col. 33, lines 42-45).

Regarding claim 4. *Wegrzyn* teaches the packet service method of claim 1, wherein the

time information includes an action time when the packet is to be transmitted on the radio link

(col. 6, lines 56-67, col. 10, lines 54-67, and col. 33, lines 42-45) and a waiting time for which

the packet waits to be transmitted until there is an available radio link *(col. 13, line 55-to-col. 14,*

line 13, and col. 11, lines 37-52, the processing resource means a radio link).

Regarding claim 5. *Wegrzyn* teaches a packet service method for a base station transceiver

sub-system (BTS) in a mobile communication system, comprising the steps of:

storing a packet received from a base station controller (BSC) *(col. 9, lines 44-67)*;

determining whether a current time is an action time when the received packet is to be

transmitted based on time information set in a predetermined field of the packet *(col. 6, lines 56-*

67, col. 10, lines 54-67, and col. 33, lines 42-45); and

transmitting the packet to a mobile station (MS) on a radio link if the current time is an action

time *(col. 4, lines 48-67 and col. 8, lines 11-29)*.

Regarding claim 6. *Wegrzyn* teaches the packet service method of claim 5, wherein the

action time is a time set in the predetermined field of the packet *(see col. 33, lines 42-45)*.

Regarding claim 7. *Wegrzyn* teaches the packet service method of claim 5, wherein the

action time is sum of a time set in the predetermined field of the packet and a pre-negotiated time

(see col. 35, lines 44-67).

Regarding claim 8. *Wegrzyn* teaches a packet service method for a base station transceiver

sub-system (BTS) in a mobile communication system, comprising the steps of:

storing a packet received from a base station controller (BSC) *(see col. 9, lines 63-67, Overhead*

message means a packet);

determining whether there is a available radio link *(col. 11, lines 37-52, the processing resource*

means a radio link);

transmitting the packet to a mobile station (MS) on a radio link if there is a available radio link

(see col. 8, lines 11-29);

determining whether a waiting time set in a predetermined field of the packet has expired if there

is no available radio link *(see col. 11, lines 12-52)*; and

discarding the packet if the waiting time has expired and determining whether there is an

available radio link if the waiting time has not expired *(see col. 20, lines 19-35)*.

Regarding claim 9. *Wegrzyn* teaches a packet service method for a base station transceiver

sub-system (BTS) in a mobile communication system, comprising the steps of:

storing a packet received from a base station controller (BSC) *(see col. 9, lines 63-67, Overhead*

message means a packet);

determining whether a waiting time set in a predetermined field of the packet has expired *(see*

col. 10, line 35-to-col. 11, lines 21);

 discarding the packet if the waiting time has expired and determining whether there is an

available radio link if the waiting time has not expired *(see col. 20, lines 19-35)*;

determining whether the waiting time has expired if there is no available radio link *(see col. 11,*

lines 12-52) and determining whether the current time is an action time based on the time

information if there is an available radio link *(col. 6, lines 56-67, col. 10, lines 54-67, and col.*

33, lines 42-45); and

transmitting the packet to a mobile station (MS) on the radio link at the action time *(col. 4, lines*

48-67 and col. 8, lines 11-29) and determining whether the waiting time has expired if the

current time is not the action time *(see col. 10, line 35-to-col. 11, lines 21)*.

Regarding claim 10. *Wegrzyn* teaches the packet service method of claim 9, wherein the

action time is sum of a time set in the predetermined field of the packet *(see col. 35, lines 44-67*

and col. 33, lines 42-45).

Regarding claim 11. *Wegrzyn* teaches the packet service method of claim 9, wherein the

action time is sum of a time set in the predetermined field of the packet and a pre-negotiated time

(see col. 35, lines 44-67).

Regarding claim 12. *Wegrzyn* teaches a packet service method for a base station controller

(BSC) in a mobile communication system, comprising the steps of:

receiving a packet *(see col. 5, lines 9-28, input message means a packet)* to be transmitted for a

mobile station (MS) *(see col. 9, lines 44-67, and col. 3, lines 23-45, mobile unit means mobile*

station (MS));

determining whether a sequence number is to be used for the packet *(see col. 8, lines 11-65, and*

col. 24, lines 31-44);

adding a field containing the sequence number of the packet to the packet if it is determined that

the sequence number is to be used *(see col. 21, lines 29-58)*; and

transmitting the packet including the field to a base station transceiver sub-system (BTS) *(see*

Fig. 1, Fig. 2, Fig. 4, col. 9, lines 44-67, and col. 4, lines 48-67, " a channel element (CE) 22

contains items 24, 26, 28, 30, 32" means a base station transceiver sub-system (BTS)).

Regarding claim 13. *Wegrzyn* teaches a packet service method for a base station transceiver

sub-system (BTS) in a mobile communication system, comprising the steps of:

storing a packet received from a mobile station (MS) *(col. 9, lines 44-67)*;

determining whether a sequence number is to be used for the packet *(see col. 8, lines 11-65, and col. 24, lines 31-44)*;

adding a field containing the sequence number of the packet to the packet if it is determined that the sequence number is to be used *(see col. 21, lines 29-58)*; and

transmitting the packet including the field to a base station controller (BSC) *(see Fig. 1, Fig. 2, Fig. 4, col. 9, lines 44-67, and col. 4, lines 48-67)*.

Regarding claim 14. *Wegrzyn* teaches a packet service method for a base station controller (BSC) in a mobile communication system, comprising the steps of:

storing a packet received from a base station transceiver sub-system (BTS) *(col. 9, lines 44-67)*;

determining whether a current time is an action time based on a predetermined period *(col. 6, lines 56-67, col. 10, lines 54-67, and col. 33, lines 42-45)*;

checking whether the stored packet has an error at the action time *(col. 6, lines 1-19)*; and

transmitting the packet to a higher layer system if the packet has no errors *(col. 4, lines 48-67 and col. 8, lines 11-29)*.

Regarding claim 15. *Wegrzyn* teaches a packet service method for a base station controller (BSC) in a mobile communication system, comprising the steps of:

storing a packet received from a base station transceiver sub-system (BTS) *(col. 9, lines 44-67)*;

determining whether a sequence of the packet is valid or not by checking a sequence number set in the packet *(see col. 8, lines 11-65, and col. 24, lines 31-44)*; and

transmitting the packet to a high layer system if the packet sequence is valid *(col. 4, lines 48-67 and col. 8, lines 11-29)*and discarding the packet if the packet sequence is invalid *(see col. 20, lines 19-35)*.

Regarding claim 16. *Wegrzyn* teaches a packet service method in a mobile communication

system, comprising the steps of:

adding a field containing time information necessary for packet transmission on a radio link *(col.*

4, lines 48-67, transmission link 18, or 20 means a radio link) to a packet to be transmitted for a

mobile station (MS) in a base station controller (BSC) *(see col. 10, lines 54-65, and col. 2, lines*

31-48, a time stamp means a field containing time information) and transmitting the packet

including the field from the BSC to a base station transceiver sub-system (BTS) *(see Fig. 1, Fig.*

2, Fig. 4, col. 9, lines 44-67, and col. 4, lines 48-67, " a channel element (CE) 22 contains items

24, 26, 28, 30, 32" means a base station transceiver sub-system (BTS));

storing the packet received from the BSC in the BTS *(col. 9, lines 44-67)*;

determining whether a current time is an action time based on the time information set in the

field of the packet in the BTS *(col. 6, lines 56-67, col. 10, lines 54-67, and col. 33, lines 42-45)*;

and

transmitting the packet from the BTS to the MS on a radio link at the action time *(col. 4, lines*

48-67 and col. 8, lines 11-29).

Regarding claim 17. *Wegrzyn* teaches the packet service method of claim 14, wherein the

action time is a time set in the field *(see col. 33, lines 42-45)*.

Regarding claim 18. *Wegrzyn* teaches the packet service method of claim 14, wherein the

action time is the sum of a time set in the field and a pre-negotiated time *(see col. 35, lines 44-*

67).

Regarding claim 19. *Wegrzyn* teaches the packet service method of claim 14, further

comprising the step of adding a field containing a sequence number of the packet to the packet in

the BSC *(see col. 2, lines 29-58)*.

Regarding claim 20. *Wegrzyn* teaches the packet service method of claim 14, wherein the

time information includes a waiting time for which the packet waits to be transmitted until there

is an available radio link *(col. 13, line 55-to-col. 14, line 13, and col. 11, lines 37-52, the*

processing resource means a radio link), further comprising the step of discarding the packet if

the packet is not transmitted until the waiting time expires *(see col. 11, lines 12-52)*.

Regarding claim 21. *Wegrzyn* teaches a packet service method in a mobile communication

system, comprising the steps of:

storing a packet received from a mobile station (MS) in a base station transceiver sub-system

(BTS) *(col. 9, lines 44-67)*, adding a field containing a sequence number of the packet to the

packet in the BTS *(col. 4, lines 48-67, transmission link 18, or 20 means a radio link)*, and

transmitting the packet including the field from the BTS to a base station controller (BSC) *(see*

lines 44-67, and col. 4, lines 48-67, " a channel element (CE) 22 contains items 24, 26, 28, 30,

32" means a base station transceiver sub-system (BTS));

determining whether a sequence of the packet is valid or not by checking the sequence number

set in the header of the packet in the BSC *(col. 6, lines 56-67, col. 10, lines 54-67, and col. 33,*

lines 42-45); and

transmitting the packet from the BSC to a high layer system if the packet sequence is valid *(col.*

4, lines 48-67 and col. 8, lines 11-29) and discarding the packet if the packet sequence is invalid

(see col. 20, lines 19-35).

Contact Information

3.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Binh Q. Nguyen whose telephone number is 571-272-8563. The

examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization

where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

By: ------------------------
Binh Q. Nguyen
Patent Examiner
11/21/2005

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER